

A summary of influenza surveillance indicators reported to MDH for the week ending November 3, 2018

Prepared by the Division of Infectious Disease Surveillance Prevention and Health Promotion Administration Maryland Department of Health

The data presented in this document are provisional and subject to change as additional reports are received.

SUMMARY

During the week ending November 3, 2018, influenza-like illness (ILI) intensity in Maryland was MINIMAL and there was REGIONAL geographic activity. The proportion of outpatient visits for ILI reported by Sentinel Providers increased. The proportion of outpatient visits for ILI reported by Maryland Emergency Departments remained steady. The proportion of MRITS respondents reporting ILI decreased. Clinical laboratories reported an increase in the proportion of specimens testing positive for influenza. Two specimens tested positive for influenza at the MDH lab. There were 4 influenza-associated hospitalizations. There were no respiratory outbreaks reported to MDH.

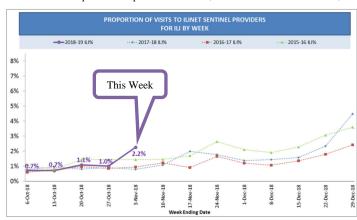
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ILI Intensity Levels		
√ Minimal		
Low		
Moderate		
High		

Influenza Geographic Activity
No Activity
Sporadic
Local
✓ Regional
Widespread

ILINet Sentinel Providers

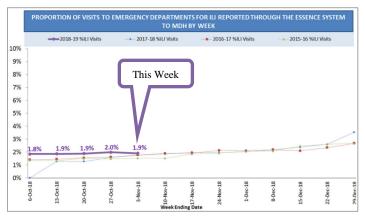
Nineteen sentinel providers reported a total of 5,914 visits this week. Of those, 133 (2.2%) were visits for ILI. This is above the Maryland baseline of 2.0%.



ILI Visits To Sentinel Providers By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	33 (25%)	24 (35%)	112 (28%)
Age 5-24	57 (43%)	30 (43%)	169 (42%)
Age 25-49	29 (22%)	8 (12%)	67 (17%)
Age 50-64	9 (7%)	4 (6%)	30 (7%)
Age ≥ 65	5 (4%)	3 (4%)	23 (6%)
Total	133 (100%)	69 (100%)	401 (100%)

Visits to Emergency Departments for ILI

Emergency Departments in Maryland reported a total of 56,802 visits this week through the ESSENCE surveillance system. Of those, 1,086 (1.9%) were visits for ILI.



ILI Visits To Emergency Departments By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	263 (24%)	266 (23%)	1,313 (23%)
Age 5-24	388 (36%)	371 (32%)	1,933 (34%)
Age 25-49	273 (25%)	336 (29%)	1,498 (27%)
Age 50-64	95 (9%)	124 (11%)	537 (10%)
Age ≥ 65	67 (6%)	70 (6%)	339 (6%)
Total	1,086 (100%)	1,167 (100%)	5,620 (100%)

Neighboring states' influenza information:

Delaware http://dhss.delaware.gov/dph/epi/influenzahome.html

District of Columbia http://doh.dc.gov/service/influenza

Pennsylvania http://www.health.pa.gov/My%20Health/Diseases%20and%20Conditions/I-L/Pages/Influenza.aspx#.V-LtaPkrJD8

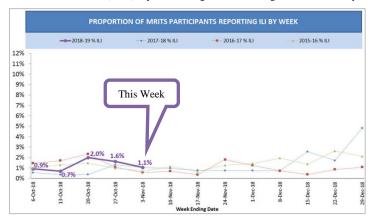
Virginia http://www.vdh.virginia.gov/epidemiology/influenza-flu-in-virginia/influenza-surveillance/

West Virginia http://dhhr.wv.gov/oeps/disease/flu/Pages/fluSurveillance.aspx

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Community-based Influenza Surveillance (MRITS)

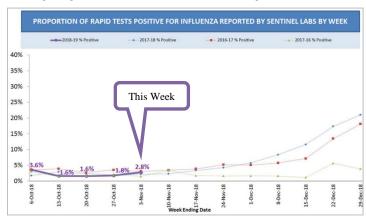
MRITS is the Maryland Resident Influenza Tracking System, a weekly survey for influenza-like illness (ILI). A total of 564 residents responded to the MRITS survey this week. Of those, 6 (1.1%) reported having ILI and missing 10 cumulative days of regular daily activities.



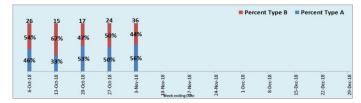
MRITS Respondents Reporting ILI By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	0 (0%)	0 (0%)	2 (6%)
Age 5-24	3 (50%)	2 (22%)	8 (23%)
Age 25-49	1 (17%)	3 (33%)	11 (31%)
Age 50-64	0 (0%)	0 (0%)	6 (17%)
Age ≥ 65	2 (33%)	4(44%)	8 (23%)
Total	6 (100%)	9 (100%)	35 (100%)

Clinical Laboratory Influenza Testing

There were 51 clinical laboratories reporting 1,300 influenza diagnostic tests, mostly rapid influenza diagnostic tests (RIDTs). Of those, 36 (2.8%) were positive for influenza. Of those testing positive, 20 (56%) were influenza Type A and 16 (44%) were influenza Type B. The <u>reliability of RIDTs</u> depends largely on the conditions under which they are used. False-positive (and true-negative) results are more likely to occur when the disease prevalence in the community is low, which is generally at the beginning and end of the influenza season and during the summer.

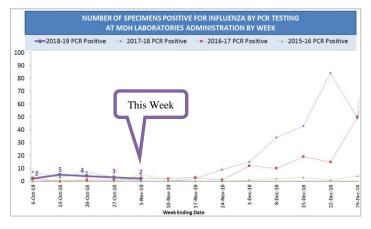


Positive Rapid Flu Tests by Type	This Week Number (%)	Last Week Number (%)	Season Number (%)
Type A	20 (56%)	12 (50%)	58 (49%)
Туре В	16 (44%)	12 (50%)	60 (51%)
Total	36 (100%)	24 (100%)	118(100%)



State Laboratories Administration Influenza Testing

The MDH Laboratories Administration performed a total of 79 PCR tests for influenza and 2 (2.5%) were positive for influenza. All 2 (100%) specimens that tested positive for influenza were for Type A (H3). PCR testing is more reliable than RIDT. The MDH testing identifies subtypes of influenza A and lineages of influenza B, information that is not available from the RIDT results. The table below summarizes results by type, subtype, and lineage.

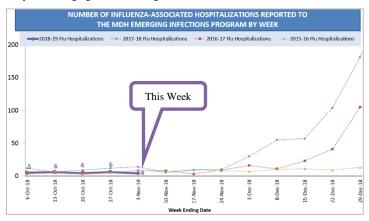


Positive PCR Tests by Type (Subtype)	This Week Number (%)	Last Week Number (%)	Season Number (%)
Type A (H1)	0 (0%)	3 (100%)	5 (31%)
Type A (H3)	2 (100%)	0 (0%)	2 (13%)
Type B (Victoria)	0 (0%)	0 (0%)	9 (56%)
Type B (Yamagata)	0 (0%)	0 (0%)	0 (0%)
Dual Type A (H1/H3)	0 (0%)	0 (0%)	0 (0%)
Dual Type A(H3)/B	0 (0%)	0 (0%)	0 (0%)
Type A (H3N2v)	0 (0%)	0 (0%)	0 (0%)
Total	2 (100%)	3 (100%)	16 (100%)

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Influenza-associated Hospitalizations

A total of 4 influenza-associated hospitalizations were reported this week. (A person with an overnight hospital stay along with a positive influenza test of any kind, e.g., RIDT or PCR, is considered an "influenza-associated hospitalization" for purposes of influenza surveillance.) This surveillance is conducted as a component of the Maryland Emerging Infections Program.



Influenza- Associated Hospitalizations by Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	1 (25%)	1 (17%)	6 (24%)
Age 5-17	0 (0%)	0 (0%)	2 (8%)
Age 18-24	0 (0%)	1 (17%)	1 (4%)
Age 25-49	3 (75%)	2(23%)	7 (28%)
Age 50-64	0 (0%)	0 (0%)	4 (16%)
Age ≥ 65	0 (0%)	2 (33%)	5 (20%)
Total	4 (100%)	6 (100%)	25 (100%)

Influenza-associated Deaths

An influenza-associated death is one with a clinically compatible illness and a positive influenza test of any kind.

Pediatric Deaths: No pediatric (< 18 years of age) deaths were reported.

Influenza-associated pediatric mortality is a reportable condition in Maryland. Pediatric deaths are tracked without regard to hospitalization.

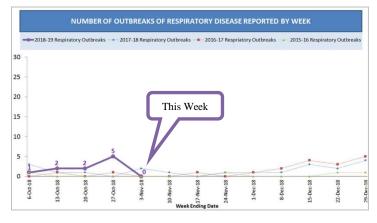
Adult Deaths Among Hospitalized Patients: Two deaths have been reported among adults admitted to Maryland hospitals this influenza season. Influenza-associated adult mortality is *not* a reportable condition in Maryland. However, adult mortality surveillance is conducted as a component of the Maryland Emerging Infections Program's influenza-associated hospitalization surveillance



Influenza-Associated Deaths	Cumulative Season Total
Pediatric Deaths (Age < 18)	0
Adult Deaths (in hospitalized cases)	2

Outbreaks of Respiratory Disease

There were no respiratory outbreaks reported to MDH this week. (Disease outbreaks of any kind are reportable in Maryland. Respiratory outbreaks may be reclassified once a causative agent is detected, e.g., from ILI to influenza.)



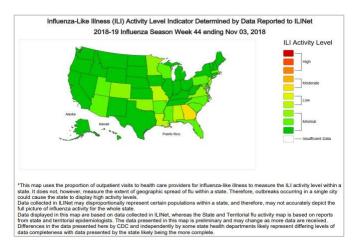
Respiratory Outbreaks by Type	This Week Number (%)	Last Week Number (%)	Season Number (%)
Influenza	0 (0%)	0 (0%)	0 (0%)
Influenza-like Illness	0 (0%)	0 (0%)	2 (20%)
Pneumonia	0 (0%)	5 (100%)	8 (80%)
Other Respiratory	0 (0%)	0 (0%)	0 (0%)
Total	0 (100%)	5 (100%)	10 (100%)

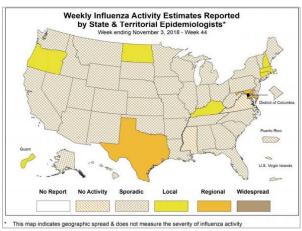
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National Influenza Surveillance (CDC)

Influenza activity in the United States remains low, although small increases in activity were reported. Influenza A(H1N1)pdm09, influenza A(H3N2), and influenza B viruses continue to co-circulate, with influenza A(H1N1)pdm09 viruses reported most commonly by public health laboratories since September 30, 2018. Below is a summary of the key influenza indicators for the week ending November 3, 2018:

- Viral Surveillance: Influenza A viruses have predominated in the United States since the beginning of July. The percentage of respiratory specimens testing
 positive for influenza in clinical laboratories was low.
 - Virus Characterization: The majority of influenza viruses characterized antigenically and genetically are similar to the cell-grown reference viruses representing the 2018–2019 Northern Hemisphere influenza vaccine viruses.
 - O Antiviral Resistance: All viruses tested since late May show susceptibility to the antiviral drugs oseltamivir, zanamivir, and peramivir.
- Influenza-like Illness Surveillance: The proportion of outpatient visits for influenza-like illness (ILI) increased slightly to 1.8%, which is below the
 national baseline of 2.2%. One of 10 regions reported ILI at or above their region-specific baseline level.
 - ILI State Activity Indictor Map: One state experienced moderate ILI activity, three states experienced low ILI activity; and New York City, the
 District of Columbia, Puerto Rico and 46 states experienced minimal ILI activity.
- Geographic Spread of Influenza: The geographic spread of influenza in two states was reported as regional; Guam and six states reported local activity; the District of Columbia, Puerto Rico, the U.S. Virgin Islands and 40 states reported sporadic activity; and two states reported no activity.
- Pneumonia and Influenza Mortality: The proportion of deaths attributed to pneumonia and influenza (P&I) was below the system-specific epidemic threshold in the National Center for Health Statistics (NCHS) Mortality Surveillance System.
- o <u>Influenza-associated Pediatric Deaths:</u> No influenza-associated pediatric deaths were reported to CDC for week 44.





Where to get an influenza vaccination

Interested in getting a flu vaccine for the 2018-19 influenza season? Go to https://phpa.health.maryland.gov/influenza/Pages/getvaccinated.aspx and click on your county/city of residence. You will be redirected to your local health department website for local information on where to get your flu vaccine.